

WHAT IS CLAIMED IS:

1. A solid laminated ball bat having a predetermined exterior outline, comprising:

an elongated body disposed about a longitudinally extending axis, said body having an outer surface defined by the exterior outline of the bat, said body including a handle on one end and a barrel on the opposite end, said body including a label section connected between said handle and said barrel;

said bat including in at least one of said handle, said barrel and said label section, at least a first plurality of thin strips, each thin strip defining a pair of opposed faces, each said face defining a substantially flat plane, each said plane being substantially parallel to the other, each said strip further defining a peripheral edge connecting said opposed faces and defining a first section of the exterior outline of the bat, at least one face of one of said strips being bonded to a face of an adjacently disposed strip such that the peripheral edges of said pair of adjacently disposed and bonded strips form a section of the uninterrupted exterior outline of the bat, said first plurality of bonded together strips defining a first portion of the bat;

said bat further including in at least one of said handle, said barrel and said label section, at least a second plurality of thin strips, each thin strip defining a pair of opposed faces, each said face defining a substantially flat plane, each said plane being substantially parallel to the other, each said strip further defining a peripheral edge connecting said opposed faces and defining a second section of the exterior outline of the bat, at least one face of one of said strips being bonded to a face of an adjacently disposed strip such that the peripheral edges of said pair of adjacently disposed and bonded strips form a second section of the uninterrupted exterior outline of the bat, said second plurality of bonded together strips defining a second portion of the bat; and

wherein the density of the first portion of the bat differs from the density of the second portion of the bat.

2. A solid laminated ball bat as in claim 1, wherein the density of said first portion of the bat is substantially uniform and wherein the density of said second portion of the bat is substantially uniform.

3. A solid laminated ball bat as in claim 1, wherein said bat is a baseball bat.

4. A solid laminated ball bat as in claim 1, wherein said first and second portions are disposed adjacent to one another.

5. A solid laminated ball bat as in claim 1, wherein first and second portions are disposed apart from each other.

6. A solid laminated ball bat as in claim 1, wherein each of said first plurality of thin strips has a thickness defined as the shortest distance between said opposed faces and wherein said thickness is between about 0.00787 inches to about 0.375 inches.

7. A solid laminated ball bat as in claim 1, wherein each of said second plurality of thin strips has a thickness defined as the shortest distance between said opposed faces and wherein said thickness is between about 0.00787 inches to about 0.375 inches.

8. A solid laminated ball bat as in claim 1, wherein each of said opposed faces are bonded together by one of an urea resin formulated with a powdered catalyst and a type 1 waterproof glue formulated with a powdered catalyst.

9. A solid laminated ball bat as in claim 1, further comprising a sealant applied over said outer surface of the bat.

10. A solid laminated ball bat as in claim 1, further comprising a catalyzed lacquer protectant applied over said outer surface of the bat.

11. A solid laminated ball bat as in claim 1, wherein said first plurality of thin strips and said second plurality of thin strips are composed of a cellulosic material, such cellulosic material being selected from the group consisting of: maple, mahogany, ash, cherry, poplar, gum, tupelo and pine.

5 12. A solid laminated ball bat as in claim 1, wherein said first plurality of thin strips and said second plurality of thin strips are composed of a composite material.

13. A laminated ball bat having a predetermined exterior outline, comprising:
an elongated body symmetrically disposed about a longitudinally extending axis,
said body having an outer surface defined by the exterior outline of the bat, said body including a
10 handle on one end and a barrel on the opposite end, said body including a label section connected between said handle and said barrel, said barrel having a free end disposed opposite where said barrel is connected to said label section, said handle having a free end disposed opposite where said handle is connected to said label section, said body defining a mid plane disposed transversely relative to said longitudinal axis and midway between said free end of said barrel
15 and said free end of said handle;

said bat including a first plurality of thin strips, each said thin strip defining a pair of opposed faces, each said face defining a substantially flat plane, each said plane being substantially parallel to the other plane, each said thin strip further defining a peripheral edge connecting said opposed faces and defining a section of the exterior outline of the bat, at least
20 one face of one of said thin strips being bonded to a opposed face of an adjacently disposed thin strip such that the peripheral edges of said pair of adjacently disposed and bonded thin strips form a first section of the uninterrupted exterior outline of the bat, said first plurality of bonded

together thin strips defining a first portion of the bat, said first portion of the bat defining a first outermost face and a second outermost face disposed opposite said first outermost face;

said bat further including a second plurality of thin strips, each said thin strip defining a pair of opposed faces, each said face defining a substantially flat plane, each said plane being substantially parallel to the other plane, each said thin strip further defining a peripheral edge connecting said opposed faces and defining a section of the exterior outline of the bat, at least one face of one of said thin strips being bonded to an opposed face of an adjacently disposed thin strip such that the peripheral edges of said pair of adjacently disposed and bonded thin strips form a second portion of the uninterrupted exterior outline of the bat, said second plurality of bonded together thin strips defining a second portion of the bat, said second portion of the bat defining a first outermost face and a second outermost face disposed opposite said first outermost face, said first outermost face of said second portion of the bat being bonded to said first outermost face of said first portion of the bat;

said bat further including a third plurality of thin strips, each said thin strip defining a pair of opposed faces, each said face defining a substantially flat plane, each said plane being substantially parallel to the other plane, each said thin strip further defining a peripheral edge connecting said opposed faces and defining a section of the exterior outline of the bat, at least one face of one of said thin strips being bonded to a face of an adjacently disposed thin strip such that the peripheral edges of said pair of adjacently disposed and bonded thin strips form a third section of the uninterrupted exterior outline of the bat, said third plurality of bonded together strips defining a third portion of the bat, said third portion of the bat defining a first outermost face and a second outermost face disposed opposite said first outermost face, said second

outermost face of said third portion of the bat being bonded to said second outermost face of said first portion of the bat; and

wherein the density of the first portion of the bat differs from the density of the second portion of the bat.

5 14. A laminated ball bat as in claim 13, wherein said first portion has a substantially uniform density, said second portion has a substantially uniform density and said third portion has a substantially uniform density.

15. A laminated ball bat as in claim 13, wherein the density of said first portion of the bat differs from the density of said third portion of the bat.

10 16. A laminated ball bat as in claim 13, wherein said first, second and third portions of the bat are disposed adjacent to one another.

17. A laminated ball bat as in claim 13, wherein said first, second and third portions of the bat are disposed apart from each other.

15 18. A laminated ball bat as in claim 13, wherein each of said first plurality of thin strips has a thickness defined as the shortest distance between said opposed faces and wherein said thickness is between about 0.00787 inches to about 0.375 inches.

19. A laminated ball bat as in claim 13, wherein each of said second plurality of thin strips has a thickness defined as the shortest distance between said opposed faces and wherein said thickness is between about 0.00787 inches to about 0.375 inches.

20 20. A laminated ball bat as in claim 13, wherein each of said third plurality of thin strips has a thickness defined as the shortest distance between said opposed faces and wherein said thickness is between about 0.00787 inches to about 0.375 inches.

21. A laminated ball bat as in claim 13, wherein each of said opposed faces are bonded together by one of an urea resin formulated with a powdered catalyst and a type 1 waterproof glue formulated with a powdered catalyst.

5 22. A laminated ball bat as in claim 13, further comprising a sealant applied over said outer surface of the bat.

23. A laminated ball bat as in claim 13, further comprising a catalyzed lacquer protectant applied over said outer surface of the bat.

10 24. A laminated ball bat as in claim 13, wherein each of said first plurality of thin strips, said second plurality of thin strips and said third plurality of thin strips are composed of a cellulosic material selected from the group consisting of: maple, mahogany, ash, cherry, poplar, gum, tupelo and pine.

25. A laminated ball bat as in claim 13, wherein each of said first plurality of thin strips, said second plurality of thin strips and said third plurality of thin strips are composed of a composite material.

15 26. A method of making a laminated ball bat, said method comprising the steps of:
providing a first laminated block, said first laminated block comprising a plurality of successively adjacent thin strips wherein adjacent thin strips are bonded together by a bonding agent;

20 providing a second laminated block, said second laminated block comprising a plurality of successively adjacent thin strips wherein adjacent thin strips are bonded together by a bonding agent wherein the density of said second laminated block differs from the density of said first laminated block;

bonding said first laminated block to said second laminated block to form a laminated blank;

subjecting said laminated blank to a pressure in a range of about 100 pounds per square inch to about 250 pounds per square inch;

5 maintaining said laminated blank under pressure in said range until said laminated blank has cured thereby forming a cured laminated blank; and

machining said cured laminated blank to form an elongated body disposed about a longitudinally extending axis, said body having an outer surface defined by the exterior outline of a bat, said body including a handle on one end and a barrel on the opposite end, said body
10 including a label section connected between said handle and said barrel.

27. A method of making a laminated ball bat according to claim 26, further comprising the step of heating said laminated blank with radio frequency waves during the step of subjecting said laminated blank to pressure.

28. A method of making a laminated ball bat according to claim 26, wherein said
15 successively adjacent thin strips are composed of veneer strips having a thickness of between about 0.00787 inches to about 0.375 inches.

29. A method of making a laminated ball bat according to claim 26, wherein said bonding agent is one of a liquid urea resin formulated with a powdered catalyst and a type 1 waterproof glue formulated with a powdered catalyst.

20 30. A method of making a laminated ball bat according to claim 26, further comprising the step of applying a sealer to said machined laminated bat thereby creating a sealed bat.

31. A method of making a laminated ball bat according to claim 26, further comprising the steps of sanding said sealed bat to remove any rough areas from the surface of such sealed bat and applying a coat of catalyzed lacquer to said sanded surface.